



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,391	04/15/2005	Masashi Watanabe	070759-0033	6874

20277	7590	01/08/2008
MCDERMOTT WILL & EMERY LLP		
600 13TH STREET, N.W.		
WASHINGTON, DC 20005-3096		

EXAMINER
NIU, XINNING

ART UNIT	PAPER NUMBER
2828	

MAIL DATE	DELIVERY MODE
01/08/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/531,391	Applicant(s) WATANABE ET AL.	
	Examiner Xinning(Tom) Niu	Art Unit 2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5 and 9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1, 2, 4, 5 9 rejected under 35 U.S.C. 103(a) as being unpatentable over De Poorter (U.S. Patent 5,578,863) in view of Onomura et al. (2002/0039374).

3. Regarding Claim 1, De Poorter discloses:

- Semiconductor laser device (10) comprising a semiconductor laser element (3) inside an airtight sealed package (20) (Figure 1).
- Atmospheric gas inside the package contains oxygen (Col 4, Lines 21-23).
- Atmospheric gas inside the package is a mixture of oxygen and nitrogen with an oxygen content of 20% or more (Col 2, Lines 23-44).

De Poorter does not disclose:

- Semiconductor laser device having active region formed of a gallium nitride based crystal.

However, Onomura et al. disclose:

- InGaN quantum well laser (claim 15).
- Output of semiconductor laser device is 30mW or more.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the laser apparatus as taught by De Poorter by mounting the InGaN laser device on the laser package in order to emit optical radiation at a lower wavelength.

4. Regarding Claim 2, De Poorter discloses:

- Semiconductor laser element having a dielectric oxide film (4) formed on a laser emission surface (Figure 1; Col 3, Lines 59-62).

5. Regarding Claim 4, De Poorter as modified discloses:

- Semiconductor laser emitting light having a wavelength of 0.9 μm or less (Onomura et al. ([0058])).

6. Regarding Claim 5, De Poorter discloses:

- Semiconductor laser element (3) arranged in airtight sealed package and atmospheric gas inside the package is a mixture of oxygen and nitrogen with an oxygen content of 20% or more (dry air) (Figure 1, Col 2, Lines 23-44, Col 3, Lines 47-67).

De Poorter does not disclose:

- Output of semiconductor laser device is 30mW or more.
- Semiconductor laser device having active region formed of a gallium nitride based crystal.

However, Onomura et al. disclose:

- Output of semiconductor laser device is 30mW or more ([0058]).
- InGaN quantum well laser (claim 15).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the laser apparatus as taught by De Poorter by mounting the InGaN laser device on the laser package in order to emit optical radiation at a lower wavelength.

7. Regarding claim 9, please see the rejection for claim 5.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xinning(Tom) Niu whose telephone number is 571-270-1437. The examiner can normally be reached on M-T, 7:30-5:00 EST, Alternate Fridays 7:30-4:00 ES.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Min Sun Harvey can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2828

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Xinning Niu
12/20/2007

MINSUN OH HARVEY
PRIMARY EXAMINER